
P. UTILITIES

1. Water and Sewer Systems (Table P-1)

A partial listing of system capacities in 8 representative communities collected for our last CEDS document are listed in Table P-1. Water system capacities in 2002 ranged from 100,000 gallons/day in Saguache to 11 million gallons/day (MGD) in Monte Vista, and 7.34 MGD in Alamosa. Most in these examples are meeting peak demand with varying percentages of excess capacity. Monte Vista's 4 MGD excess was 36.4% of total capacity, and Alamosa's 2.24 MGD was 30.5%.

Commercial tap fees (based on 1-inch line) ranged from \$200 in Center to \$1,600 in Monte Vista, and user rates ranged from \$0.90 base/1,000 gal in Alamosa to \$59.28 base/1,000 in Creede. Residential taps ranged from \$500 in La Jara to \$2,000 in Del Norte, and user rates ranged from \$12.00/10,000 gal in Monte Vista to \$22.08/1,000 gal in Creede. Tap fees are lower than most places in Colorado, and water rates comparable.

Sewer system capacities ranged from 150,000 gal/day in Saguache to 5.50 MGD in Monte Vista, and 2.57 MGD in Alamosa. Excess capacity in Monte Vista of 2.73 MGD was 49.6%, and Alamosa's 0.94 MGD was 36.6%. Commercial taps (based on 4-inch line) ranged from \$25 in La Jara to \$1,750 in South Fork, and rates ranged from \$1.00/1,000 in Alamosa to \$24.82/1,000 in Creede. Residential taps ranged from \$25 in La Jara to \$2,000 in Del Norte, and rates ranged \$1.00/1,000 in Alamosa to \$15.00/1,000 in Saguache and South Fork.

2. Water and Sewer System Needs (Table P-2)

Table P-2 addresses water and sewer system needs in 16 towns and Water Sanitation Districts in the Valley, with a total upgrading cost for project proposals to the Colorado State Department of Local Affairs Energy Mineral Impact program are \$65,055,903. Compare this to the CEDS 2002 Update's total request for funding of \$16.1 million. County total project cost estimates are highest in the two most populous counties: Alamosa (\$23.7 million); and Rio Grande (\$11.2 million).

None of the projects listed for any of the six counties has a priority ranking that suggests there is an acute health hazard that must be addressed. Two water projects in Alamosa County are partly needed to address chronic or long-term health hazards. Also, there are potential health hazards in Costilla and Saguache that proposed projects should address. Projects in Conejos, Costilla, Rio Grande, Saguache counties and others are based on needs for equipment repair, replacement, rehabilitation, compliance issues, and/or health protection.

Regarding wastewater-related projects, there are several requests for funding for projects that would, at least in part, improve or benefit public health or that will remediate a public health hazard. Each of the counties has requested funding for a project or projects that would address non-compliance issues and/or projects that will utilize proactive and long-range planning for water quality approaches and/or pollution prevention methods such as capacity and growth issues, water reuse, water conservation, and Best Management Practices. Additional projects will improve or benefit water quality.

The single largest undertaking since the 2002 CEDS was the City of Alamosa's installation of an arsenic filtration system. Brought about by Federal regulatory agencies lowering the allowable levels of arsenic from 50 parts per billion (PPB) down to 10 PPB, this system represented an expensive major project for the city.

Approximately 46.0% of the Valley's population is served by central sewer and water systems, with the balance on individual wells and septic systems. The drought, lowered water table, and aquifer depletion in rural areas has already caused some residential wells to dry up. With the exception of La Jara and a few other communities, most of the city water supplies appear to be adequate. Water supplied by the cities and sanitation districts is usually high in quality and taste, but well water is variable depending on location.

3. Solid Waste, Landfills, and Recycling (Table P-3, P-4)

Table P-3 lists three major landfills with annual volume of 37,000 tons (18,600 cubic yards). These include the San Luis Valley Regional landfill west of Monte Vista, Saguache County landfill, and Mineral County landfill. Transfer stations are located at Fort Garland, San Luis, and La Jara/Sanford.

Alamosa, Monte Vista, and the larger cities and towns provide trash collection, and the smaller towns and outlying parts of counties are served by 6 private waste disposal companies. Illegal dumping is a problem in most areas, and many smaller sites do not meet stringent new landfill requirements. Conejos and Costilla counties considered a jointly operated landfill site to better serve their residents.

Nationwide, recycling is being used more frequently to reduce solid waste going into landfills, and to reduce landfill costs. In the Valley, however, we were able to find only one major recycling operation --- the Alamosa Recycling Center, with 534.1 tons shipped in 2001.

Table P-4 outlines how much solid waste the average person in the U.S. generates each day. In 1999, the average person generated 4.6 pounds; 2.7 pounds (58.7%) of which was disposed of in a landfill; 1.3 pounds (27.7%) was recycled; and 0.7 pounds burned for energy recovery. Applying these national averages to the Valley's 2006 population of 48,291 results in total waste generated of about 220,000 lbs/day, or 40,515 tons/yr. Landfill equivalent for the Valley is 23,798 tons, and recycling is 6,168 tons.

When compared with actual numbers, the Valley is putting more into landfill than the national average, and recycling less. This demonstrates the need for more study on the recycling potentials and feasibility for the Valley as a means of reducing landfill expansion and cost.

National averages on percent distribution of waste generation show paper and paperboard the highest (38.1%), followed by yard wastes (12.1%); food wastes (10.9%); and plastics (10.5%). Special handling or services are generally required for disposal of dead animals, waste oil, chemicals, batteries, and tires.

Combustion of solid waste for energy recovery, or co-generation, is a small part of the U.S. averages, but the U.S. Department of Energy is planning to have 30% of electrical energy produced this way by 2050.

4. Electric Utilities (Table P-5, P-6, P-7)

Xcel Energy (Table P-5) and Center Municipal Light & Power (Table P-7) are distributors of both electric and natural gas energy, and San Luis Valley Rural Electric Cooperative (Table P-6) distributes electric only. Xcel Energy's territory covers most of the larger cities and towns; the Rural Electric serves South Fork, Crestone, Creede, and a large portion of the unincorporated areas; and Center Municipal for its own town. All of these entities purchase power from Tri-State Generation & Transmission.

Electric rate schedules for these companies as reported in the three separate tables differ somewhat in format, and may not be directly comparable in all cases. Our calculations to approximate a comparable cost per kilowatt-hour indicated a range of \$.04000-\$.0741 for both residential and commercial, with industrial rates subject to greater variation depending on the type of schedule used. According to Xcel Energy, as of January 2008 the San Luis Valley has no interruptible customers.

Electric energy units in the tables refer to a kilowatt-hour (kWh), which is equivalent to 1 kilowatt (1,000 watts) of power expended over one hour of time. One watt is a unit of power (or rate of energy) equivalent to one ampere of electric current delivered across a potential of one volt. Ten 100-watt light bulbs require 1 kW of power to stay lit at any point in time.

Our previous CEDS writeup referenced a 2001 survey of major market utility rates, where Denver's \$0.06/kWh posted seventh lowest out of 49 states, and was rated "below average." The Valley rates from Xcel and Center Municipal matched closely to Colorado's, but the Rural Electric's ran somewhat higher due to the greater line mileage required to serve its more remote and less populated rural areas. Over half of Rural Electric's energy demand comes from irrigation use, with the balance split between residential and commercial.

Electric energy was reported in the 2000 Census as the main heating source for 2,056 homes (11.9%) in the Valley, particularly the western portion where a special rate structure designed by San Luis Valley Rural Electric for Electric Thermal Storage (ETS) heaters are regarded as preferable to propane. ETS heaters work by storing heat generated through regular electric coils in ceramic bricks, and then releasing heat through fans. Ceramic bricks are known for their ability to retain and dissipate large amounts of heat very effectively, and are used on the underside of NASA's space shuttles.

In order to minimize home heating costs, meters attached to the ETS units receive signals from REC to turn off during peak load hours, and on again during the non-peak hours in order to generate and store heat for later hours. The REC has installed hundreds of these special ETS heating units (which can also be used for hot water heaters) in its service area. In Creede for example, so many of these heaters have been installed that REC has sometimes had to stagger the switching on of these units to avoid overloading their electric lines.

5. Gas Utilities (Table P-6, P-8)

Table P-6 shows Alamosa, Monte Vista, and 11 other cities and towns with natural gas service distributed by Xcel Energy, and Table P-8 reports the same for the Town of Center, which receives its supply from an Xcel Energy pipeline. While natural gas is preferable, the 2000 Census reported (Table T-3 in the Housing Chapter) that 43.3% of the Valley's 17,328 occupied housing units are heated by utility gas; 28.6% are on bottled, tank, or LP gas; and a surprisingly high percentage (13.0%) use wood. Statewide, 74.9% are on utility gas lines; 6.2% on propane; and only 1.5% rely on wood.

According to the survey of utility rates, Colorado's gas rates were the lowest of the 49 cities and states studied. Survey comparisons were made in units of 1,000 cubic feet (Mcf) --- equivalent to about 10 therms. Based on Mcf units, the Valley rates range from \$3.92-\$4.76/Mcf compared with \$2.93/Mcf in Colorado. This would place the Valley rates closer to Terre Haute, Houston, and Fargo --- but still ranked among the 5 lowest cities in the Nation.

6. Center Ag Treatment Facility

In June 1998, construction was completed on a wastewater treatment facility in Center designed especially for the treatment of agricultural wastes in order to launch the Valley's value-added ag processing efforts. Funding was provided by a \$2.7 million CDBG assistance package from the Colorado Office of Economic Development to build the facility, based on job and economic benefits provided by the Enko carrot and Sunshine potato processing plant startups.

For its participation in the project, SLVDRG is receiving payments on a \$1.4 loan (which was part of the funding package) for the RLF (now BLF) program. Additional collection lines funded by USDA grants to the Town were also provided through SLVDRG assistance.

Center's facility is probably the only one of its kind in the U.S. owned and operated by a municipal sanitation district. Using a Sequencing Batch Reactor plant design, the facility has capacity for 1.5 MGD of flow and 10,200/lbs of biochemical oxygen demand (BOD) per day. Now owned and operated by the Idaho Pacific/Otter Tail company, the former Sunshine plant is the town's only major customer. Initially, the plant used about 350,000 GPD (23%) of the treatment capacity, going to about 490,000 GPD at full production.

Problems in the system operations a few years ago required extra help from the company to fix. A doubling in present size of the plant has been planned for some time, contingent on the installation of a new pipeline and increased supply of natural gas from Xcel Energy to the town and plant. The treatment facility was originally designed to handle 2-3 more plants the size of IP/Ottertail, and the facility was built with the ability to add more treatment cells if needed.

Table P-1

Water and Sewer System Capacities - Selected Cities/Towns, 2002

	<u>Alamosa</u>	<u>Center</u>	<u>Creede</u>	<u>Del Norte</u>
Water				
Capacity	7.34 MGD	2.59 MGD	0.646 MGD	0.713 ¹⁾ MGD
Average Demand	3.50 "	0.96 "	0.358 "	1.100 "
Peak Demand	5.10 "	1.15 "	0.544 "	
Excess Capacity	2.24 "	1.40 "	0.300 "	
Category Flow Range	1.0 - 5.1 "	.96 - 1.40 "		1.100 "
Commercial Tap Fees	\$1,500/ 1" tap	\$750/ 1" tap	\$600/ 1" tap	
Commercial User Rates	\$0.90 base/ 1,000 gal	\$10.50 base/ 1,000 gal	\$59.28 base/ 1,000 gal	\$21.00 base/ 1,000 gal
Residential Tap Fee	\$1,000/ .75" tap	\$750/ 1" tap	\$600/ 1" tap	\$2,000/ 1" tap
Residential User Rates	\$0.90/ 1,000 gal	\$10.50 base/ 1,000 gal	\$22.08/ 1,000 gal	\$21.00/ 1,000 gal
Sewer				
Capacity	2.57 MGD	0.64 MGD	0.56 MGD	1.38 MGD
Average Demand	1.37 "	0.48 "	0.10 "	0.39 "
Peak Demand	1.63 "	0.59 "	0.13 "	0.84 "
Excess Capacity	0.94 "			1.50 "
System Type	Extended Air/ Activated Sludge	Lagoons	Lagoons	Lagoons
Commercial Tap Fee	\$1,000/ 4"	\$200/ 4"	\$400/ 4"	
Commercial User Rates	\$1.00/ 1,000 gal	\$12.00/ 1,000 gal	\$24.82/ 1,000 gal	\$12.00/ 1,000 gal
Residential Tap Fee	\$1,000/ 4"	\$200/ 4"	\$400/ 4"	\$2,000/ 4"
Residential User Rates	\$1.00/ 1,000 gal	\$6.50/ 1,000 gal	\$9.71/ 1,000 gal	\$12.00/ 1,000 gal
	<u>La Jara</u>	<u>Monte Vista</u>	<u>Saguache</u>	<u>South Fork</u> ²⁾
Water				
Capacity	n/a	11 MGD	0.1 MGD	
Average Demand	0.603 MGD	2 "		
Peak Demand	0.783 "	7 "		
Excess Capacity		4 "		
Category Flow Range	0.536 "			
Commercial Tap Fees	\$500/ 1" tap	\$1,600/ 1" tap	\$1,000/ 1" tap	
Commercial User Rates	\$7.54 base/ 1,000 gal	\$12.00 base/ 10,000 gal	\$15.00 base/ 1,000 gal	
Residential Tap Fee	\$500/ 1" tap	800/ 1" tap	\$1,000/ 1" tap	
Residential User Rates	\$6.25/ 1,000 gal	\$6.00/ 10,000 gal	\$15.00/ 1,000 gal	
Sewer				
Capacity	0.170 MGD	5.50 MGD	0.1500 MGD	0.300 MGD
Average Demand	0.246 "	1.23 "	0.0682 "	0.050 "
Peak Demand	0.160 "	2.77 "	0.1160 "	0.088 "
Excess Capacity		2.73 "		0.130 "
System Type	Lagoons	Lagoons & Aeration	Lagoons	Lagoons & Aeration
Commercial Tap Fee	\$25/ 4"	\$1,500/ 4"	\$1,000/ 4"	\$1,750/ 4"
Commercial User Rates	\$22.13/ 1,000 gal	\$10.00/ 1,000 gal	\$15.00/ 1,000 gal	\$15.00/ 1,000 gal
Residential Tap Fee	\$25/ 4"	\$1,500/ 4"	\$1,000/ 4"	\$1,750/ 4"
Residential User Rates	\$18.75/Mo	\$10.00/ 1,000 gal	\$15.00/ 1,000 gal	\$15.00/ 1,000 gal

Source: SLV Development Resources Group, July 2002. Collected by direct contact with municipal water departments.

1) Holding capacity of reservoirs. Pumps take water up to the reservoirs where it is gravity fed down to the town. Pumps run almost continuously to provide the water needed.

2) The Town of South Fork does not have a public water system; residential/commercial buildings rely on private wells.

Table P-2
Water and Sewer System Needs, 2008

County/Entity	Description	Project cost
<u>Alamosa</u>		
East Alamosa WSD	Consolidation of Water Treatment Facilities	\$2,100,000
East Alamosa WSD	Collection/Interceptor Construction/Rehabilitation	383,168
City of Alamosa	New Regional Water Treatment Facility	16,500,000
Hooper	New Water Treatment Facility	2,000,000
Hooper	New Wastewater Treatment plant/Eliminate ISDS	1,000,000
		21,983,168
<u>Conejos</u>		
La Jara	Distribution/Transmission lines construction	\$1,000,000
La Jara	Collection/Interceptor Construction/Rehabilitation	2,050,000
La Jara	Stormwater Project	500,000
Manassa	Improvement/Expansion of Water Treatment Facility	500,000
Romeo	Improvement/Expansion of Water Treatment Facility	599,000
Sanford	Distribution/Transmission lines construction	250,000
		4,899,000
<u>Costilla</u>		
Blanca	Distribution/Transmission lines construction	\$600,000
Blanca	Collection/Interceptor Construction/Rehabilitation	200,000
Costilla County WSD	Distribution/Transmission lines construction	741,000
San Luis WSD	Improvement/Expansion of Wastewater Treatment Facility	630,000
San Luis WSD	Improvement/Expansion of Water Treatment Facility	300,000
		2,471,000
<u>Mineral</u>		
Creede	Improvement/Expansion of Water Treatment Facility	\$2,100,000
Creede	Improvement/New biosolids Handling Facility	2,000,000
		4,100,000
<u>Rio Grande</u>		
Del Norte	Water Meters	\$1,413,341
Del Norte	Improvement/Expansion of Wastewater Treatment Plant	400,000
Monte Vista	Distribution/Transmission lines construction	2,500,000
Monte Vista	Improvement/Expansion of Wastewater Treatment Plant	9,500,000
South Fork WSD	Improvement/Expansion of Wastewater Treatment Plant	1,000,000
South Fork WSD	New Regional Water Treatment Facility	8,000,000
		22,813,341
<u>Saguache</u>		
Baca Grande WSD	Improvement/Expansion of Water Treatment Facility	\$500,000
Center	Water Storage Facilities	55,000
Center	Improvement/Expansion of Wastewater Treatment Plant	250,000
Crestone	Connect to Existing Facility; Construct New Water Treatment Facility	1,500,394
Crestone	Stormwater project	500,000
Moffat	New Wastewater Treatment Plant; Collection	500,000
Moffat	New Water Treatment Facility	3,500,000
Town of Saguache	Improvement/Expansion of Water Treatment Facility	150,000
Town of Saguache	Improvement/Expansion of Wastewater Treatment Plant	1,834,000
		8,789,394
TOTAL		\$65,055,903

Source: Colorado Department of Public Health & Environment, Water Quality Control Commission, Water Pollution Control RLF project eligibility list, Summer 2007; and Domestic Wastewater Treatment Grant Program project list, Summer 2007.

WWTF = Wastewater treatment facility. **WSD** = Water & Sanitation District. **I/I** = Inflow/infiltration
ISDS = Individual Sewage Disposal Systems" (septic systems).

Table P-3

Solid Waste Services, Landfills, and Recycling, 2002

San Luis Valley Regional Landfill, 6 miles west of Monte Vista (Hwy 160)

Acres: 50
Area Served: Open to all six San Luis Valley counties
Annual Volume: 28,000 tons (14,000 cubic Yards)
Fees: Commercial \$15.50/ton Residential \$4.10/ cubic yard

Transfer Stations

Fort Garland
San Luis
La Jara/Sanford (Ace Disposal)

Saguache County Landfill, 10 miles east of Saguache (CR 55)

Acres: 35
Area Served: Saguache County residents receive favorable rates
Annual Volume: Compacted - 2,300 cubic yards; Loose - 4,600 cubic yards
Fees (selected items):

	<u>County residents</u>	<u>Outside of County</u>
Cubic yard, loose or compacted	\$8.25	\$24.75
Construction debris, cubic yard	\$8.25	\$24.75
Tires	\$3.00-\$5.00	\$9.00-\$15.00
Dead animals	\$5.00-\$10.00	\$15.00

Mineral County Landfill

Acres: 8
Area Served: Creede and Mineral County
Annual Volume:
Fees (selected items):

Waste Disposal Services

Ace Disposal, La Jara
Coyote Sanitation, Monte Vista
GT's Trash Service, San Luis
M & M Trash & Roll-Off Service, Valleywide
Nancy's Trash Service, Crestone, Moffat, Saguache, Villa Grove
R.G.B. Roll-Off Service, Alamosa

Alamosa Recycling Center, 2001

	<u>Number</u>	<u>Tons</u>
Paper	691 bales	460.1
Aluminum cans	7,015 lbs.	3.5
Glass bottles	948 barrels	71.1
Total tons shipped		<u>534.7</u>
Total revenues	\$	15,699
Cost savings in tipping fees		<u>8,288</u>
Overall benefit	\$	23,987

The Center also provides a collection point for yard waste.

Blue Peaks Day Services, Alamosa

Aluminum cans only

Source: Staff contacts and interviews, GIS/GPS Authority and DRG, May 2002.
Alamosa Recycling Center information compiled by Recycling Coordinator, April 2002.

Table P-4**Solid Waste Generation, Recovery, and Disposal - United States, 1980-1999****Per person, per day (lb.)**

<u>Item and Material</u>	<u>1980</u>	<u>1990</u>	<u>1995</u>	<u>1999</u>
Waste generated	3.70	4.50	4.40	4.60
Materials recovered	0.35	0.70	1.10	1.30
Combustion for energy recovery	0.06	0.70	0.70	0.70
Combustion without energy recovery	0.27	0.05	0.02	-
Landfill/other disposal	3.00	3.10	2.50	2.70

Percent distribution of generation

Paper and paperboard	36.1	35.4	38.6	38.1
Glass	9.9	6.4	6.1	5.5
Metals	9.6	8.1	7.5	7.8
Plastics	5.2	8.3	8.9	10.5
Rubber and leather	2.8	2.8	2.9	2.7
Textiles	1.7	2.8	3.5	3.9
Wood	4.4	6.0	4.9	5.3
Food wastes	8.7	10.1	10.3	10.9
Yard wastes	18.2	17.1	14.0	12.1
Other wastes	3.4	3.0	3.3	3.2

Source: U.S. Census Bureau, *Statistical Abstract of the United States: 2001*, Table No. 359.

Table P-5

Xcel Energy - Electric and Natural Gas Rates, 2008

Electric Rates - Selected Schedules, 2008

Communities served: Alamosa, Antonito, Blanca, Bonanza, Bountiful, Chama, Conejos, Del Norte, Fort Garland, Guadalupe, Homelake, Hooper, Herea, La Jara, La Valley, Las Mesita, Lobatos, Manassa, Moffat, Monte Vista, Mosca, Ortiz, Platoro, Romeo, Saguache, San Antonio, Sanford, San Francisco, San Luis, San Pablo, and Sargent.

<u>Rate schedule</u>	<u>Charge type</u>	<u>Billing units</u>	<u>Base rate</u>
Residential	Service & facility		\$6
	Energy	kWh	0.04000
Commercial (less than 25 kW)	Service & facility		\$8
	Energy	kWh	0.04000
Demand (Residential) (25 kW or higher)	Service & facility		\$7
	Demand	kWh	7.38
	Demand cap		0.00
	Energy	kWh	0.00288
Primary generation	Service & facility		\$130
	Demand	kWh	7.80
	Energy	kWh	0.00282

Natural Gas Rates - Selected Schedules, 2008

Communities served: Alamosa, Antonito, Capulin, Conejos, Del Norte, Guadalupe, La Jara, Manassa, Monte Vista, Romeo, Saguache, Sanford, and Sargent.

<u>Rate schedule</u>	<u>Charge type</u>	<u>Billing units</u>	<u>Base rate</u>	<u>Adjustments</u>	<u>Gas cost adjustment</u>
Residential	Service & facility	Therm	\$10.00	11.93%	
	Usage	Therm	0.07923	11.93%	
	Commodity	Therm			\$0.6820
Commercial	Service & facility		\$20.00	11.93%	
	Usage	Therm	0.095300	11.93%	
	Commodity	Therm			0.682000
Industrial	Service & facility		\$70.00	11.93%	
	Usage	DTH	0.499800	11.93%	
	On-peak demand cost	DTH	4.66	11.93%	1.730000
	Commodity	DTH			6.592000
	Unauthorized overrun - each occurrence	DTH	\$25.00		
	Distribution system			11.93%	

Source: Rate schedules provided by Xcel Energy (formerly Public Service Company of Colorado), effective 1/1/08.

kW = kilowatt: measurement of energy equal to 1,000 watts.

kWh = kilowatt-hour: unit of energy equivalent to 1 kW of power expended for 1 hour of time.

Table P-6

San Luis Valley Rural Electric - Rate Schedule, 2008

Rate Schedules, Effective 12/10/07

<u>Rate Name</u>	<u>Charge Type</u>	<u>Total</u>
A-Single Phase	Wires & Maintenance Charge	\$15.25
	Minimum Energy Charge	10.80
	Energy Charge (First 100 kWh)	0.15
	Energy Charge (Over 100 kWh)	0.12
A-Single Phase Time of Day	Wires & Maintenance Charge	\$25.00
	On-Peak kWh	0.14
	Off-Peak kWh	0.05
A -Three Phase	Wires & Maintenance Charge	\$32.50
	Energy Charge (First 200 kWh)	0.13
	Energy Charge (Next 800 kWh)	0.12
	Energy Charge (Over 1000 kWh)	0.10
B-Three Phase Time of Day	Wires & Maintenance Charge	\$40.00
	On-Peak kWh	0.14
	Off-Peak kWh	0.05
I-Irrigation Block Rate is 150 kWh/HP/Mo	Annual HP Charge	\$14.25
	Energy Charge (1st Block)	0.11
	Energy Charge (2nd Block)	0.09
	Energy Charge (3rd Block)	0.06
I-Irrigation (Demand) Block Rate is 200 kWh/HP/Mo	Annual HP Charge	\$14.25
	Energy Charge (1st Block)	0.11
	Energy Charge (2nd Block)	0.09
	Energy Charge (3rd Block)	0.06
I - Irrigation Time of Day	Annual HP Charge	\$14.25
	On-Peak kWh	0.18
	Off-Peak kWh	0.05
LP-A Large Power Less than 500 kW Rates 50, 55	Wires & Maintenance Charge	\$75.00
	Demand Charge	5.10
	Energy Charge (First 200 kWh/Billing kW)	0.10
	Energy Charge (Next 200 kWh/Billing kW)	0.07
	Energy Charge (Over 400 kWh/Billing kW)	0.04
LP-A Time of Day	Wires & Maintenance Charge	\$75.00
	Billing Demand Charge	5.10
	On-Peak Demand Charge	22.75
	Energy Charge	0.03
LP-B Large Power Greater than 1000 kW Secondary Metered Rates 51	Wires & Maintenance Charge	\$364.00
	Demand Charge	9.00
	Energy Charge (First 200 kWh/Billing kW)	0.07
	Energy Charge (Next 200 kWh/Billing kW)	0.06
	Energy Charge (Over 400 kWh/Billing kW)	0.03
YL Yard Light	Non-Metered	\$10.01
	Extra Charge for first additional 150 Ft or next 100 Ft.	7.50
	Metered	5.00
Renewable Resource Surcharge	Per 100 kWh block, per month	\$1.25

Source: Rate Schedules San Luis Valley Rural Electric Cooperative, December 2007.

kW = kilowatt: measurement of energy equal to 1,000 watts.

kWh = kilowatt-hour: unit of energy equivalent to 1 kW of power expended for 1 hour of time.

Table P-7

Center Municipal - Electric and Natural Gas Rates, 2008

Center Municipal Utilities Record of Rate Adjustments

Communities served: Town of Center.

<u>Rate schedule</u>	<u>Charge type</u>	<u>Billing units</u>	<u>Base rate</u>
Residential		First 25 kWh	\$4
(Electrical service for limited use)		Each kWh over 25 kWh	0.0741
Fuel cost adjustment	Energy		0.0109
Residential		First 400 kWh	\$26
(All electrical appliances and heating)		Each kWh over 400 kWh	0.066700
Fuel cost adjustment	Energy		0.010900
Commercial Electric		First 25 kWh	\$4
		Each kWh over 25	0.07
Fuel cost adjustment	Energy		0.0109
Gas- Residential			
	Energy	First 1 HCF	\$6.23
		Each HCF over 1HCF	0.8185
Fuel cost adjustment	Energy		0.1685
Commercial Gas		First 1 HCF	6.2300
		Each HCF over 1HCF	0.8185
Fuel cost adjustment			0.1685

Source: Rate schedules provided by Xcel Energy (formerly Public Service Company of Colorado), effective 1/1/07 and Center Municipal Light and Power, 1/24/08.

kW = kilowatt: measurement of energy equal to 1,000 watts.

kWh = kilowatt-hour: unit of energy equivalent to 1 kW of power expended for 1 hour of time.